Colorado Department of Public Health and Environment

Regulation 81: What does it mean for Colorado AFOs?

Environmental Agriculture Program

This fact sheet highlights certain compliance deadlines and requirements of Regulation 81 for animal feeding operations (AFOs). For more details you can access the full text of Regulation 81 online at www.colorado.gov/cdphe/cafos or contact the Environmental Agriculture Program at (303) 692-3523, 3520, 2499 or 3614 with questions.

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All animal feeding operations (AFOs) in Colorado are subject to Regulation 81 (Animal Feeding Operations Control Regulation), administered by the Colorado Department of Public Health and Environment's Environmental Agriculture Program (Ag Program). This fact sheet defines what an AFO is and outlines the best management practice (BMP) requirements for AFOs to protect water quality.

Is my livestock operation an AFO or a CAFO?

An AFO is a facility where animals are confined for 45 days or more in any 12-month period in an area that does not sustain crops or other vegetation while the animals are confined (e.g., a bare lot or housed operation). The table below shows when an AFO also is defined as a concentrated animal feeding operation (CAFO). A CAFO must have a discharge permit and/or operate under the specific standards shown in Regulation 81.

An AFO can be *designated* a CAFO (instead of defined as a CAFO) where the Ag Program determines that it could contribute pollutants to waters of the U.S. In making this case-by-case determination, the Ag Program will consider factors like the size of the AFO and the amount of manure and wastewater reaching waters of the U.S.

Animal Type	AFO *Number of animals*	Medium AFO *Number of animals*	Medium CAFO *Number of animals + discharge criteria*	Large CAFO *Number of animals*
Mature dairy cows (milking or dry)	1 – 199	200 – 699	A Medium CAFO has the same animal numbers as a medium AFO, but also discharges pollutants into waters of the U.S. either directly or through a man-made system.	A Large CAFO is any operation with animal numbers greater than a medium AFO.
Veal calves or cattle (including heifers, steers, bulls and cow/calf pairs)	1 – 299	300 – 999		
Swine (55 lbs. or more)	1 – 749	750 – 2,499		
Swine (less than 55 lbs.), sheep or lambs	1 – 2,999	3,000 – 9,999		
Horses	1 – 149	150 – 499		
Turkeys	1 – 16,499	16,500 – 54,999		
Poultry	See Regulation 81 [81.3(19)] for poultry threshold number information.			

Best Management Practices

If you own or operate an AFO, appropriate BMPs must be implemented for the facility. BMPs are activities, procedures or practices that can reduce an AFO's impacts on surface or ground water. The table on the next page lists some of the BMPs included in Regulation 81 for you to consider based on your AFO's physical conditions and site constraints.

Remember, even facilities housing non-traditional livestock like llama, buffalo, and elk can be considered AFOs.

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Example BMPs for Protecting Water Quality

Purpose	Example BMPs
Divert clean run-on water	Construct ditches, terraces or other waterways to divert clean run-on water away from confinement areas and manure or wastewater control structures.
Decrease open lot surface area	Eliminate animal confinement areas and manure and wastewater control structures in areas where wastewater and runoff cannot be contained.
Decrease water volume	Repair or adjust waterers and water systems to minimize waste.
Decrease wastewater discharges to surface water	• Prevent direct contact of animals with surface water. – A stock watering point may be used where animals have access to no other source of drinking water, but the area must be cleaned frequently of manure and have wastewater diverted at the watering point entry. • Do not deposit waste in locations where it could be transported into surface water by high streamflow or stormwater runoff. • Collect and evenly apply wastewater to land application sites at agronomic rates. • Treat wastewater using a wastewater treatment strip (pretreat inflow using a solids separator as appropriate) or another method approved by the Ag Program.
Minimize manure transport to surface water	• Collect manure from corrals frequently. • Locate manure stockpiles away from surface water and the 100 year flood plain, unless adequate flood proofing structures are in place. • Berm manure stockpiles to minimize runoff. • Apply manure to land application sites at agronomic rates.
Protect groundwater	• Locate manure and wastewater management facilities hydrologically downgradient and at • least 150 feet from water supply wells. • Use a buffer area around water wells when land applying manure and wastewater. • Install a liner with a seepage rate of $1x10^{-6}$ cm/sec or less, if required by the Ag Program.
Purpose	**Additional BMPs for Medium AFOs**
Decrease wastewater discharges to surface water	Design, construct, and maintain impoundments to be able to store wastewater for 120 days (for disposal by land application to crops) or 180 days (for disposal by evaporation).
Protect groundwater	• Line impoundments to have a seepage rate of $1x10^{-6}$ cm/sec or less. • Maintain on site documentation from a professional engineer registered in Colorado certifying that the seepage rate for an impoundment is $1x10^{-6}$ cm/sec or less.

Records for Liner Certifications

If you operate a Medium AFO or if the Ag Program has required your AFO to obtain impoundment liner seepage rate certifications you must keep the liner certifications on site at the AFO and make them available to the Ag Program upon request.

Records for Land Applications

If you apply manure or wastewater to land application sites at your Medium AFO, Regulation 81 requires that you keep records to show that manure and wastewater were applied at agronomic rates. These records must be kept on site at the AFO for five years and made available to the Ag Program upon request. Examples of land application records include, but are not limited to:

- Results of soil and manure nutrient analyses;
- Calculations showing how much manure or wastewater should be applied to supply the crop nutrient needs;
- Records of crops grown and crop yields; and
- Records showing when manure and wastewater were applied to land.